PARASITE-HOST RELATIONSHIP IN MICE ENVIRONMENTALLY CONTAMINATED WITH SYPHACIA SPP IN ANIMAL KEPT IN RESEARCH FACILITIES

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Syphacia sp is a cosmopolitan nematode that parasitizes small rodents. Its eggs are easily dispersed, potentially interfering with experimental studies conducted in environments with weakened sanitary conditions. To evaluate the parasitic interaction of Syphacia sp with isogenic (C57BL/6) and non-isogenic (Swiss Webster) mice, the animals were divided into four groups after carrying out Graham's parasitological examination: BLN (C57BL/6 negative); BLP (C57BL/6 positive); SWN (Swiss Webster negative); and SWP (Swiss Webster positive). After collecting peripheral blood for cell profile evaluation (leukogram), the rodents were euthanized, and the cecum and peri-anal region were removed for histopathological and morphometric analysis. In the BLN and SWN groups, the cecum region showed standard morphology of the mucosal, submucosal, and muscular layers, along with goblet cells. However, the BLP and SWP groups presented hyperplasia of goblet cells with increased mucus production, leukocyte infiltration, and submucosal expansion, while the muscular layer remained preserved. In the peri-anal region, only the BLP group showed alteration with the transformation of epithelial tissue into glands with goblet cells and the loss of structures such as sebaceous glands and hair follicles, associated with rectal prolapse. The infected BLP and SWP groups exhibited an inflammatory cell profile, but the isogenic animals demonstrated greater susceptibility. The morphometry of the cecum showed that both infected groups had significant morphological alterations, but the non-isogenic group showed less damage compared to the infection. The results indicate that *Syphacia sp* significantly interferes with the health of rodents, especially isogenic mice, potentially impacting and compromising the validity of experimental studies conducted in contaminated environments.

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